

# OBSERVATIONS ON COURTSHIP FEEDING IN SOME AUSTRALIAN BIRDS

By ANGUS ROBINSON, "Yanjettee," Coolup.

I was very interested in a note in the *W.A. Naturalist*, vol. 2, 1950, p. 79, in which S. R. White records the courtship feeding of a presumed mated pair of Pallid Cuckoos (*Cuculus pallidus*).

In *Wildlife*, vol. 12, no. 1, January, 1950, J. R. Skemp of Tasmania records the feeding of a *female* Pallid Cuckoo by its mate. Identification of the sexes was based on the size of the birds—the female being regarded as smaller—and also the song. This identification seems pretty conclusive, yet, in the April issue, no. 4, vol. 12, E. A. R. Lord, of Murphy's Creek, Queensland, records what was presumably the feeding of a *male* by the female. This identification was based on the act of copulation, presuming that it was the male which mounted the hen. Of course this is not proof positive as reversed copulation is not uncommon in birds.

In looking up my notes over the last five years I find that I had come to the same conclusion as Lord (based on the act of copulation) that the female fed the male.

On November 13, 1946, about 9.30 a.m. I observed a Pallid Cuckoo on a fence post, it gave a short mating song (female?). Another bird, from some distance away, flew over and mounted her without any resistance and copulation presumably took place. Then one bird went and procured some food and offered it to the other. I noticed this courtship feeding take place a number of times.

On November 14, 1946, my notes say:—Presumably the same pair as yesterday, one bird was flying from one fence post to another followed by its mate. As the second bird alighted on the fence post the first bird would leave and fly to another. The second bird would follow and so on. The following bird appeared a shade larger. The second bird flew down to pick up some food which it ate when back on its post. The other bird did the same. I noticed the first bird feed the second bird once. It was a similar display to yesterday—the first bird feeding the second. There was the usual short mating call (female?) uttered once or twice and also the other song heard during mating (similar to the Greenshank call).

On November 15, 1946, the same pair of birds were seen behaving in a similar manner.

On October 10, 1949, I saw a pair of Pallid Cuckoos copulating in a dead tree. I was drawn to them by the call of the female (?) which drew an answering call of a different type from the male who flew into the tree. After moving about from limb to limb, the male mounted and copulation took place. The birds separated and for a minute or two both rotated their tails and though the female crouched once or twice as if inviting copulation the act was not repeated in my presence.

From the foregoing it would appear that in the Pallid Cuckoo the female takes a prominent part in stimulating courtship behaviour or conditioning the pair for the sexual act, even to the feed-

ing of the male. The female uses a short harsh note and the male a similar call to the Greenshank. But Skemp would imply that the male feeds the hen. This may also be right according to the physical state of the particular birds as I have shown in my study of Magpie Lark behaviour.

There is another aspect in the feeding behaviour of Pallid Cuckoos that I have not touched on and that is the presumed feeding by adults of young birds. This is mentioned by A. J. North in *Nests and Eggs of Birds found breeding in Australia and Tasmania*, by N. Learmonth in the *Victorian Naturalist*, vol. 65, 1949, p. 258, by Carol Jackson in *The Emu*, vol. 48, p. 176, and by D. White in *The Emu*, vol. 49, p. 202. While not belittling these observations one must be very sure that the young is not an adult, as in courtship behaviour the adult female may often behave in a very similar manner to the young bird. In fact it is recognised today that there is a definite resemblance between the behaviour of the young bird while it is still dependent on its parents, and the mating behaviour of the adult.

As an example of how careful one must be in interpreting bird behaviour I would like to quote again from my notes on an observation on Sacred Kingfishers (*Halcyon sanctus*), November 4, 1949, between 11.30 a.m. and 12.30 p.m. I watched a male (?) feeding a hen(?). She was stationary on the branch of a small sapling while the male scouted around and got food for her. Almost immediately after the first feeding that I witnessed he mounted her and copulation took place. When he arrived back the second time he brought a small skink which was wriggling in his beak. He spent much time killing it before he handed it over to the hen who devoured it. She waited quite patiently while he was doing it. Copulation did not take place this time and as after 20 minutes he had not returned, I flushed the hen, who was making a very low sound, which she had uttered off and on the whole time. She only flew a short distance and perched again. Her attitude on the branch was more of a crouch than the ordinary perching posture. If I had not seen copulation take place in this case I might have been excused for thinking it was an adult feeding young.

The Kookaburra (*Dacelo gigas*) has the same habit of feeding its mate during the mating season, but what of the feeding of the sitting bird by its mate? Skemp records the feeding of the sitting female in the Dusky Robin (*Amaurodrias vittata*). The female quivered her wings when being fed just as a young bird might. I have recorded the feeding of a sitting grey Butcher-bird (*Cracticus torquatus*) by its mate during very wet weather. The sitting bird made a noise just like a young one when being fed—but she was sitting on three eggs at the time. In many species of birds courtship feeding is carried on from the time of mating until the end of the incubation period. But I have never seen a Butcher-bird feeding its mate except in this single instance on the nest. The Pallid Cuckoo does not feed its mate during the incubation period. Do the Kookaburra and Sacred Kingfisher feed their mate during incubation?